



Calvert City Terminal Review

2005-530I

November 21, 2005



Objective and Scope

- ◆ **Objective**

Determine why Tennessee Valley Authority (TVA) has incurred significant coal adjustments stemming from TVA's receipt of coal through Calvert City Terminal (CC).

- ◆ **Scope**

Preliminary assessment of processes, procedures, and inventory records covering February 2003 through September 10, 2003 (terminal began operations in February 2003).



Background

- ◆ TVA has contracted with CC through 2008 for transloading, stockpiling, and blending coal.
- ◆ TVA received 13.7 million tons of coal from CC from facility start-up (February 2003) through September 29, 2005.
- ◆ CC has a stockpile capacity of one million tons.
 - TVA can use up to 350,000 without incurring extra charges.
- ◆ TVA is contractually obligated to have a minimum of 3 million and maximum of 5 million tons delivered to CC each year.
- ◆ CC is contractually obligated to comply with TVA weighing procedures.
 - CC verified that TVA Fossil Power Group had provided a copy of TVA's "Scale Procedures: Quality Control of Coal Weighing Processes at Terminals."
- ◆ TVA does flyovers of the CC stockpiles to adjust inventory, normally every 3 months.



Methodology

- ◆ In order to accomplish our objective, we:
 - Obtained and reviewed the CC contract.
 - Observed the CC terminal process and interviewed key personnel at both the CC terminal and records office.
 - Obtained information on CC shipments and receipts for the period under review.
 - ◆ CC excel spreadsheets and an access database.
 - ◆ TVA Fuel Management Systems' (FMS) reports.
 - Attempted to reconcile inventory from the terminal start-up to the first TVA flyover on September 10, 2003.
 - Performed an analytical review of (1) overall shipments to CC and (2) TVA plant receipts.

** This inspection was conducted in accordance with the "Quality Standards for Inspections."*



Summary of Observations

- ◆ Based on our limited review, we found inventory adjustments may be a result of several issues, including:
 - For the 9-month period reviewed, some CC and FMS recorded weights did not match.
 - ◆ CC records for TVA barge shipments were 3,698 tons greater than FMS.
 - ◆ CC records for train deliveries were 15,255 tons less than FMS.
 - Until July 2005, the CC rail unloader scale (Scale C) and the barge load scale (Scale D) were not certified.
 - ◆ CC calibrates the three blending scales.
 - Some trains arrive without all cars that are listed on the manifest--(e.g., cars have been removed from the train for repairs).
 - ◆ Missing cars were sometimes included in the inventory as received.
 - Stockpiles continue to have coal removed and added after the lines are drawn for flyovers.

**CC and TVA personnel stated that differences also result from accumulation or loss of moisture in coal.*



Additional Information

- ◆ When train shipments to CC were analyzed for February 2003 through September 29, 2005, received weights were higher than manifest weights by 139,258 tons.
- ◆ Flyovers have a margin of error of +/- 5 percent. Based on the quantity of coal received at CC since start of business (13.7 million tons), the following adjustments fall within the margin of error.
 - Using CC inventory numbers, there is a positive net adjustment of 159,178 tons (1.2 percent).
 - Using TVA inventory numbers and excluding the December 12, 2004, flyover (do not have TVA spreadsheet), there is still a positive net adjustment of 55,198 tons (0.4 percent).
- ◆ Some timing differences exist between FMS inventory and CC inventory.
 - Shipments to CC are dated earlier in FMS than at CC.
 - Shipments from CC are dated earlier at CC than in FMS.

